

**Application No.: 10/575,017**  
**Filing Date: April 9, 2007**

## **REMARKS**

Claims 1-19 are presently pending. Support for amendments to the claims is found in the Specification as filed as discussed below. No new matter has been added herewith. The following addresses the substance of the Office Action.

### **Indefiniteness**

Claim 16 was rejected under 35 U.S.C. § 112, second paragraph as being indefinite. In particular, the claim recited the particle diameter and a Markush group for the pigment, but failed to recite whether the pigment is the pigment of the coating (Claim 15) or the pigment of the preparation (Claim 1). The Applicant has amended Claim 16 to recite that at least one pigment is in the coating. Accordingly, the claim is believed to be in compliance with the requirements of 35 U.S.C. § 112, second paragraph.

### **Anticipation/Obviousness**

*Auhorn et al.*

Claims 1-8 and 18 were rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 102(a) as obvious over Auhorn et al. (U.S. Patent No. 4,908,240). Auhorn et al. discloses in column 1, line 65 to column 2, line 10 that a paper coated with 100 parts of finely divided pigments, 5 to 70 parts of a paper-size polymer (binder), and 0.01 to 10 parts of a surfactant provides a better printability than usual papers. Concerning the paper-size polymer, the reference discloses that some parts can be replaced by water-soluble polysaccharide. However, Auhorn et al. clearly discloses that the polymer (binder) should be in a ratio from 5 to 70 parts per weight to 100 parts per weight of the pigments.

To more clearly distinguish over the cited reference, the Applicant has amended the claims (see Claims 1 and 18) by defining that the ratio of binder to pigments in the preparation applied to a paper substrate is no more than 2 parts by weight of binder to 100 parts by weight of pigment. Support for the amendment is found in the specification as filed, for example at paragraph [0030]. To be anticipatory under 35 U.S.C. § 102, a reference must teach each and every element of the claimed invention. *See Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1379 (Fed.Cir. 1986). “[A]nticipation requires that all of the elements and limitations of the claim are found within a single prior art reference.” *See Scripps Clinic & Research Foundation v.*

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*Genentech, Inc.*, 927 F.2d 1565 (Fed. Cir. 1991). Thus, in view of the amendments, the claimed paper composition and related processes are not anticipated by the reference.

With regard to the alleged obviousness, the presently claimed invention is based on the unexpected finding that a paper can be provided having natural structure and haptics (i.e., the “feel” of the paper) when it is coated with the preparation according to element b) of Claim 1. The Specification discloses that less binder should be contained in the preparation in order to obtain the haptic properties of natural paper (see paragraph 30). Based on the teachings of Auhorn et al., which teaches that the ratio of binder to pigments is required to be between 5-70 parts by weight of binder : 100 parts by weight of pigment, one of ordinary skill in the art would have had no reason to develop the presently claimed paper. Unexpectedly, the Applicant has found that the presently claimed paper results in improved printability without having any disadvantageous influences on the optical or haptic properties of the paper substrate. Referring to the Specification at paragraph [0042], the paper retains or virtually retains the visual and haptic impression of an untreated natural paper.

In view of the amendments to the claims and the preceding remarks the Applicant respectfully requests that the rejection under 35 U.S.C. § 102(b) or, in the alternative, under 35 U.S.C. § 102(a) be withdrawn.

*Auhorn et al. in view of Moreland and Stoye*

Claims 9-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Auhorn et al. (*supra*) in view of Moreland (U.S. Patent No. 5,977,018) as evidenced by Stoye et al. (Paints, Coatings and Solvents, Second, Completely Revised Edition). However, in view of the amendments to Claims 1 and 18, and the remarks above, Moreland and Stoye do not provide any additional disclosure beyond Auhorn et al. that would have led the skilled artisan to develop the presently claimed paper, which unexpectedly results in improved printability without having any disadvantageous influences on the optical or haptic properties of the paper substrate. Thus, the claims are not obvious over the cited combination and the Applicant respectfully requests that the rejection be withdrawn.

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*Auhorn et al. in view of the Present Specification*

Claims 14-17 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Auhorn et al. (*supra*) in view of the instant Specification. The present specification is cited as reciting that, in the prior art, coated papers comprise at least one coating, which usually consists of pigments, binders and additives and that, for improved printability, two or three coats can be applied. However, in view of the amendments to Claims 1 and 18 and the remarks above, the presently claimed paper, wherein the ratio of binder to pigments in the preparation applied to a paper substrate is no more than 2 parts by weight of binder to 100 parts by weight of pigment, is not *prima facie* obvious and the Applicant respectfully requests that the rejection be withdrawn.

*Ogawa et al. in view of Stoye*

Claims 1, 2 and 4-19 were rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 102(a) as obvious over Ogawa et al. (U.S. Patent No. 5,576,088) as evidenced by Stoye et al. (*supra*). Ogawa et al. describe a paper comprising an ink-receiving layer, consisting essentially of a pigment and a binder. In column 7, line 66 to column 8, line 5, it is particularly pointed out that the amount of the binder in the ink-receiving layer is from 3 to 70 parts per weight. Moreover, Ogawa teaches at column 8, lines 1-3 that, if the amount of binder is less than 3 parts per weight, the strength of the ink-receiving layer will be insufficient. Thus, not only does Ogawa not anticipate the presently claimed paper, wherein the ratio of binder to pigments in the preparation applied to a paper substrate is no more than 2 parts by weight of binder to 100 parts by weight of pigment, the reference teaches away from the presently claimed paper. Teaching away is strong evidence against any alleged *prima facie* obviousness. In view of the foregoing, the presently claimed paper is neither anticipated nor obvious in light of the combination of references cited, and the Applicant respectfully requests that the rejection be withdrawn.

*Darsillo et al. in view of Stoye*

Claims 1-8 and 14-19 were rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 102(a) as obvious over Darsillo et al. (U.S. Publication No. 2002/0004131) as evidenced by Stoye et al. (*supra*). Darsillo et al. discloses a recording medium that comprises a coating containing a binder and two types of particles, one of which is a pigment.

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In paragraph [0078] it is disclosed that the total amount of the binder is from 1 percent to about 50 percent of the composition (i.e., dry binder and particles combined). In paragraph [0063], Darsillo et al. mentions that the coating can further comprise additives. One of the additives mentioned is a surfactant. The Examiner is of the opinion that by this teaching and the teaching of the examples, that the presently claimed ratio of binder to pigment can be calculated. However, the Applicant notes that the coating compositions that are actually disclosed by Darsillo et al. have:

- a) a pigment to binder ratio of 5:1 (equivalent to a ratio of 100:20) without surfactant in the coating (see, Examples 1, 2, 3, and 4);
- b) a pigment to binder ratio of 90:20 without surfactant in the coating (see, Examples 11 and 15); or
- c) a pigment to binder ratio of 100:25 with surfactant in the coating (see, Examples 12 and 16).

However, the reference does not disclose a preparation comprising a ratio of pigment to binder of 100: $\leq$ 2, in addition to a surfactant.

In view of the foregoing, the presently claimed paper is not anticipated by the cited references since the amended claims clearly distinguish over the teachings of the cited references with regard to the ratio of binder to pigment in the preparation applied to the paper. Moreover, as noted above, the presently claimed paper and related processes provide a coated paper that has favorable haptic properties of natural paper, while exhibiting the enhanced printability of a coated paper. These unexpected results are evidence against any alleged *prima facie* obviousness. Nothing in the teachings of Darsillo et al. or Stoye et al. would have led the skilled artisan to develop the presently claimed paper and related processes. Accordingly, the Applicant respectfully requests that the rejection be withdrawn.

*Darsillo et al. in view of Moreland and Stoye et al.*

Claims 9-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Darsillo et al. (*supra*) in view of Moreland (*supra*) and as evidenced by Stoye et al. (*supra*). However, in view of the amendments to Claims 1 and 18, and the remarks above, Moreland and Stoye do not provide any additional disclosure beyond Darsillo et al. that would have led the skilled artisan to develop the presently claimed paper, which unexpectedly results in improved printability without

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having any disadvantageous influences on the optical or haptic properties of the paper substrate. Thus, the claims are not obvious over the cited combination and the Applicant respectfully requests that the rejection be withdrawn.

**No Disclaimers or Disavowals**

Although the present communication may include alterations to the application or claims, or characterizations of claim scope or referenced art, Applicant is not conceding in this application that previously pending claims are not patentable over the cited references. Rather, any alterations or characterizations are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any previously pending or other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by any prior prosecution. Accordingly, reviewers of this or any parent, child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present application.

**Co-Pending Applications of Assignee**

Applicant wishes to draw the Examiner's attention to the following co-pending applications of the present application's assignee.

Docket No.	Serial No.	Title	Filed
FLGDK26.003APC	11/994497	CAST COATING DEVICE	30-May-2008
FLGDK26.004APC	12/297201	METHOD FOR APPLYING INTERFERENCE PIGMENTS TO A SUBSTRATE	01-Jun-2009
FLGDK26.005APC	12/302266	COATED PAPERS HAVING IMPROVED LABELLING PROPERTIES	29-May-2009
FLGDK26.006APC	12/438343	CAST-COATING-LIKE INKJET PRINTING MATERIAL	12-Oct-2009

## CONCLUSION

In view of Applicants' amendments to the Claims and the foregoing Remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

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By: /Raymond D. Smith/

Raymond D. Smith  
Registration No. 55,634  
Agent of Record  
Customer No. 20995  
(949) 760-0404

8963913  
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